

1645



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P#19

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/445,289C

DATE: 11/06/2002
TIME: 14:44:48

Input Set : A:\seqlistcorrected3.txt
Output Set: N:\CRF4\11062002\I445289C.raw

SEQUENCE LISTING

- 3 (1) GENERAL INFORMATION:
- 5 (i) APPLICANT: Mukamolova, Galina V. et al.
 7 (ii) TITLE OF INVENTION: Bacterial Pheromones and Uses Therefor
 9 (iii) NUMBER OF SEQUENCES: 59
 11 (iv) CORRESPONDENCE ADDRESS:
 12 (A) ADDRESSEE: LAHIVE & COCKFIELD, LLP
 13 (B) STREET: 28 State Street
 14 (C) CITY: Boston
 15 (D) STATE: Massachusetts
 16 (E) COUNTRY: USA
 17 (F) ZIP: 02109-1875
 19 (v) COMPUTER READABLE FORM:
 20 (A) MEDIUM TYPE: Floppy disk
 21 (B) COMPUTER: IBM PC compatible
 22 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 23 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
 25 (vi) CURRENT APPLICATION DATA:
 C--> 26 (A) APPLICATION NUMBER: US/09/445,289C
 C--> 27 (B) FILING DATE: 11-May-2000
 C--> 37 (vii) PRIOR APPLICATION DATA:
 30 (A) APPLICATION NUMBER: PCT/GB98/01619
 31 (B) FILING DATE: 03-JUNE-1998
 34 (A) APPLICATION NUMBER: GB 9711389.8
 35 (B) FILING DATE: 04-JUN-1997
 38 (A) APPLICATION NUMBER: GB 9811221.2
 39 (B) FILING DATE: 27-MAY-1998
 41 (viii) ATTORNEY/AGENT INFORMATION:
 42 (A) NAME: Lauro, Peter C.
 43 (B) REGISTRATION NUMBER: 32,360
 44 (C) REFERENCE/DOCKET NUMBER: FHW-051US
 46 (ix) TELECOMMUNICATION INFORMATION:
 47 (A) TELEPHONE: (617) 227-7400
 48 (B) TELEFAX: (617) 742-4214
 50 (2) INFORMATION FOR SEQ ID NO: 1:
 52 (i) SEQUENCE CHARACTERISTICS:
 53 (A) LENGTH: 362 amino acids
 54 (B) TYPE: amino acid
 55 (D) TOPOLOGY: linear
 59 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
 61 Met Leu Arg Leu Val Val Gly Ala Leu Leu Leu Val Leu Ala Phe Ala
 62 1 5 10 15
 64 Gly Gly Tyr Ala Val Ala Ala Cys Lys Thr Val Thr Leu Thr Val Asp

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65          20          25          30
67 Gly Thr Ala Met Arg Val Thr Thr Met Lys Ser Arg Val Ile Asp Ile
68          35          40          45
70 Val Glu Glu Asn Gly Phe Ser Val Asp Asp Arg Asp Asp Leu Tyr Pro
71          50          55          60
73 Ala Ala Gly Val Gln Val His Asp Ala Asp Thr Ile Val Leu Arg Arg
74          65          70          75          80
76 Ser Arg Pro Leu Gln Ile Ser Leu Asp Gly His Asp Ala Lys Gln Val
77          85          90          95
79 Trp Thr Thr Ala Ser Thr Val Asp Glu Ala Leu Ala Gln Leu Ala Met
80          100         105         110
82 Thr Asp Thr Ala Pro Ala Ala Ser Arg Ala Ser Arg Val Pro Leu
83          115         120         125
85 Ser Gly Met Ala Leu Pro Val Val Ser Ala Lys Thr Val Gln Leu Asn
86          130         135         140
88 Asp Gly Gly Leu Val Arg Thr Val His Leu Pro Ala Pro Asn Val Ala
89          145         150         155         160
91 Gly Leu Leu Ser Ala Ala Gly Val Pro Leu Leu Gln Ser Asp His Val
92          165         170         175
94 Val Pro Ala Ala Thr Ala Pro Ile Val Glu Gly Met Gln Ile Gln Val
95          180         185         190
97 Thr Arg Asn Arg Ile Lys Lys Val Thr Glu Arg Leu Pro Leu Pro Pro
98          195         200         205
100 Asn Ala Arg Arg Val Glu Asp Pro Glu Met Asn Met Ser Arg Glu Val
101          210         215         220
103 Val Glu Asp Pro Gly Val Pro Gly Thr Gln Asp Val Thr Phe Ala Val
104          225         230         235         240
106 Ala Glu Val Asn Gly Val Glu Thr Gly Arg Leu Pro Val Ala Asn Val
107          245         250         255
109 Val Val Thr Pro Ala His Glu Ala Val Val Arg Val Gly Thr Lys Pro
110          260         265         270
112 Gly Thr Glu Val Pro Pro Val Ile Asp Gly Ser Ile Trp Asp Ala Ile
113          275         280         285
115 Ala Gly Cys Glu Ala Gly Gly Asn Trp Ala Ile Asn Thr Gly Asn Gly
116          290         295         300
118 Tyr Tyr Gly Gly Val Gln Phe Asp Gln Gly Thr Trp Glu Ala Asn Gly
119          305         310         315         320
121 Gly Leu Arg Tyr Ala Pro Arg Ala Asp Leu Ala Thr Arg Glu Glu Gln
122          325         330         335
124 Ile Ala Val Ala Glu Val Thr Arg Leu Arg Gln Gly Trp Gly Ala Trp
125          340         345         350
127 Pro Val Cys Ala Ala Arg Ala Gly Ala Arg
128          355         360
130 (2) INFORMATION FOR SEQ ID NO: 2:
132   (i) SEQUENCE CHARACTERISTICS:
133     (A) LENGTH: 188 amino acids
134     (B) TYPE: amino acid
135     (D) TOPOLOGY: linear
139   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

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RAW SEQUENCE LISTING
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141 Met Pro Val Gly Trp Leu Trp Arg Ala Arg Thr Ala Lys Gly Thr Thr
142 1 5 10 15
144 Leu Lys Asn Ala Arg Thr Thr Leu Ile Ala Ala Ala Ile Ala Gly Thr
145 20 25 30
147 Leu Val Thr Thr Ser Pro Ala Gly Ile Ala Asn Ala Asp Asp Ala Gly
148 35 40 45
150 Leu Asp Pro Asn Ala Ala Gly Pro Asp Ala Val Gly Phe Asp Pro
151 50 55 60
153 Asn Leu Pro Pro Ala Pro Asp Ala Ala Pro Val Asp Thr Pro Pro Ala
154 65 70 75 80
156 Pro Glu Asp Ala Gly Phe Asp Pro Asn Leu Pro Pro Pro Leu Ala Pro
157 85 90 95
159 Asp Phe Leu Ser Pro Pro Ala Glu Ala Pro Pro Val Pro Val Ala
160 100 105 110
162 Tyr Ser Val Asn Trp Asp Ala Ile Ala Gln Cys Glu Ser Gly Gly Asn
163 115 120 125
165 Trp Ser Ile Asn Thr Gly Asn Gly Tyr Tyr Gly Leu Arg Phe Thr
166 130 135 140
168 Ala Gly Thr Trp Arg Ala Asn Gly Gly Ser Gly Ser Ala Ala Asn Ala
169 145 150 155 160
171 Ser Arg Glu Glu Gln Ile Arg Val Ala Glu Asn Val Leu Arg Ser Gln
172 165 170 175
174 Gly Ile Arg Ala Trp Pro Val Cys Gly Arg Arg Gly
175 180 185

177 (2) INFORMATION FOR SEQ ID NO: 3:

- 179 (i) SEQUENCE CHARACTERISTICS:
180 (A) LENGTH: 174 amino acids
181 (B) TYPE: amino acid
182 (D) TOPOLOGY: linear

186 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
188 Met Ser Glu Ser Tyr Arg Lys Leu Thr Thr Ser Ser Ile Ile Val Ala
189 1 5 10 15
191 Lys Ile Thr Phe Thr Gly Ala Met Leu Asp Gly Ser Ile Ala Leu Ala
192 20 25 30
194 Gly Gln Ala Ser Pro Ala Thr Asp Ser Glu Trp Asp Gln Val Ala Arg
195 35 40 45
197 Cys Glu Ser Gly Gly Asn Trp Ser Ile Asn Thr Gly Asn Gly Tyr Leu
198 50 55 60
200 Gly Gly Leu Gln Phe Ser Gln Gly Thr Trp Ala Ser His Gly Gly
201 65 70 75 80
203 Glu Tyr Ala Pro Ser Ala Gln Leu Ala Thr Arg Glu Gln Gln Ile Ala
204 85 90 95
206 Val Ala Glu Arg Val Leu Ala Thr Gln Gly Ser Gly Ala Trp Pro Ala
207 100 105 110
209 Cys Gly His Gly Leu Ser Gly Pro Ser Leu Gln Glu Val Leu Pro Ala
210 115 120 125
212 Gly Met Gly Ala Pro Trp Ile Asn Gly Ala Pro Ala Pro Leu Ala Pro
213 130 135 140
215 Pro Pro Pro Ala Glu Pro Ala Pro Pro Gln Pro Pro Ala Asp Asn Phe

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216	145	150	155	160
218	Pro Pro Thr Pro Gly Asp Val Pro Ser Pro Leu Ala Arg Pro			
219		165	170	
221	(2) INFORMATION FOR SEQ ID NO: 4:			
223	(i) SEQUENCE CHARACTERISTICS:			
224	(A) LENGTH: 407 amino acids			
225	(B) TYPE: amino acid			
226	(D) TOPOLOGY: linear			
230	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:			
232	Met Ser Gly Arg His Arg Lys Pro Thr Thr Ser Asn Val Ser Val Ala			
233	1	5	10	15
235	Lys Ile Ala Phe Thr Gly Ala Val Leu Gly Gly Gly Ile Ala Met			
236	20	25	30	
238	Ala Ala Gln Ala Thr Ala Ala Thr Asp Gly Glu Trp Asp Gln Val Ala			
239	35	40	45	
241	Arg Cys Glu Ser Gly Gly Asn Trp Ser Ile Asn Thr Gly Asn Gly Tyr			
242	50	55	60	
244	Leu Gly Gly Leu Gln Phe Thr Gln Ser Thr Trp Ala Ala His Gly Gly			
245	65	70	75	80
247	Gly Glu Phe Ala Pro Ser Ala Gln Leu Ala Ser Arg Glu Gln Gln Ile			
248	85	90	95	
250	Ala Val Gly Glu Arg Val Leu Ala Thr Gln Gly Arg Gly Ala Trp Pro			
251	100	105	110	
253	Val Cys Gly Arg Gly Leu Ser Asn Ala Thr Pro Arg Glu Val Leu Pro			
254	115	120	125	
256	Ala Ser Ala Ala Met Asp Ala Pro Leu Asp Ala Ala Val Asn Gly			
257	130	135	140	
259	Glu Pro Ala Pro Leu Ala Pro Pro Pro Ala Asp Pro Ala Pro Pro Val			
260	145	150	155	160
262	Glu Leu Ala Ala Asn Asp Leu Pro Ala Pro Leu Gly Glu Pro Leu Pro			
263	165	170	175	
265	Ala Ala Pro Ala Asp Pro Ala Pro Pro Ala Asp Leu Ala Pro Pro Ala			
266	180	185	190	
268	Pro Ala Asp Val Ala Pro Pro Val Glu Leu Ala Val Asn Asp Leu Pro			
269	195	200	205	
271	Ala Pro Leu Gly Glu Pro Leu Pro Ala Ala Pro Ala Asp Pro Ala Pro			
272	210	215	220	
274	Pro Ala Asp Leu Ala Pro Pro Ala Pro Ala Asp Leu Ala Pro Pro Ala			
275	225	230	235	240
277	Pro Ala Asp Leu Ala Pro Pro Ala Pro Ala Asp Leu Ala Pro Pro Val			
278	245	250	255	
280	Glu Leu Ala Val Asn Asp Leu Pro Ala Pro Leu Gly Glu Pro Leu Pro			
281	260	265	270	
283	Ala Ala Pro Ala Glu Leu Ala Pro Pro Ala Asp Leu Ala Pro Ala Ser			
284	275	280	285	
286	Ala Asp Leu Ala Pro Pro Ala Pro Ala Asp Leu Ala Pro Pro Ala Pro			
287	290	295	300	
289	Ala Glu Leu Ala Pro Pro Ala Pro Ala Asp Leu Ala Pro Pro Ala Ala			
290	305	310	315	320

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PATENT APPLICATION: US/09/445,289C

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292 Val Asn Glu Gln Thr Ala Pro Gly Asp Gln Pro Ala Thr Ala Pro Gly
293 325 330 335
295 Gly Pro Val Gly Leu Ala Thr Asp Leu Glu Leu Pro Glu Pro Asp Pro
296 340 345 350
298 Gln Pro Ala Asp Ala Pro Pro Pro Gly Asp Val Thr Glu Ala Pro Ala
299 355 360 365
301 Glu Thr Pro Gln Val Ser Asn Ile Ala Tyr Thr Lys Lys Leu Trp Gln
302 370 375 380
304 Ala Ile Arg Ala Gln Asp Val Cys Gly Asn Asp Ala Leu Asp Ser Leu
305 385 390 395 400
307 Ala Gln Pro Tyr Val Ile Gly
308 405

310 (2) INFORMATION FOR SEQ ID NO: 5:

- 312 (i) SEQUENCE CHARACTERISTICS:
313 (A) LENGTH: 155 amino acids
314 (B) TYPE: amino acid
315 (D) TOPOLOGY: linear

319 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

321 Met Pro Gly Glu Met Leu Asp Val Arg Lys Leu Cys Lys Leu Phe Val
322 1 5 10 15
324 Lys Ser Ala Val Val Ser Gly Ile Val Thr Ala Ser Met Ala Leu Ser
325 20 25 30
327 Thr Ser Thr Gly Met Ala Asn Ala Val Pro Arg Glu Pro Asn Trp Asp
328 35 40 45
330 Ala Val Ala Gln Cys Glu Ser Gly Arg Asn Trp Arg Ala Asn Thr Gly
331 50 55 60
333 Asn Gly Phe Tyr Gly Gly Leu Gln Phe Lys Pro Thr Ile Trp Ala Arg
334 65 70 75 80
336 Tyr Gly Gly Val Gly Asn Pro Ala Gly Ala Ser Arg Glu Gln Gln Ile
337 85 90 95
339 Thr Val Ala Asn Arg Val Leu Ala Asp Gln Gly Leu Asp Ala Trp Pro
340 100 105 110
342 Lys Cys Gly Ala Ala Ser Asp Leu Pro Ile Thr Leu Trp Ser His Pro
343 115 120 125
345 Ala Gln Gly Val Lys Gln Ile Ile Asn Asp Ile Ile Gln Met Gly Asp
346 130 135 140
348 Thr Thr Leu Ala Ala Ile Ala Leu Asn Gly Leu
349 145 150 155

351 (2) INFORMATION FOR SEQ ID NO: 6:

- 353 (i) SEQUENCE CHARACTERISTICS:
354 (A) LENGTH: 176 amino acids
355 (B) TYPE: amino acid
356 (D) TOPOLOGY: linear

360 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

362 Met His Pro Leu Pro Ala Asp His Gly Arg Ser Arg Cys Asn Arg His
363 1 5 10 15
365 Pro Ile Ser Pro Leu Ser Leu Ile Gly Asn Ile Ser Ala Thr Ser Gly
366 20 25 30
368 Asp Met Ser Ser Met Thr Arg Ile Ala Lys Pro Leu Ile Lys Ser Ala

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/06/2002
PATENT APPLICATION: US/09/445,289C TIME: 14:44:49

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; Xaa Pos.3,4
Seq#:38; Xaa Pos.13,18
Seq#:41; N Pos. 9,15,21

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/445,289C

DATE: 11/06/2002
TIME: 14:44:49

Input Set : A:\seqlistcorrected3.txt
Output Set: N:\CRF4\11062002\I445289C.raw

L:26 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:27 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:29 M:220 C: Keyword misspelled or invalid format, [(vii) PRIOR APPLICATION DATA:]
L:641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:1387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:1390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:16
L:1716 M:111 C: (47) String data converted to upper case,
M:111 Repeated in SeqNo=54